SEQUENCE LISTING

<110> ITOH, Fumio
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MATSUMOTO, Hirokazu
WAKABAYASHI, Takeshi

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<151> 2004-04-15

<150> JP 2003-114313
<151> 2003-04-18

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Ser Ser Tyr Tyr Gln His Thr Ser Pro Val Ala Ala Met Phe Ile Val
        35                  40                  45
Ala Tyr Ala Leu Ile Phe Leu Leu Cys Met Val Gly Asn Thr Leu Val
    50                  55                  60
Cys Phe Ile Val Leu Lys Asn Arg His Met His Thr Val Thr Asn Met
65                  70                  75                  80
Phe Ile Leu Asn Leu Ala Val Ser Asp Leu Leu Val Gly Ile Phe Cys
                85                  90                  95
Met Pro Thr Thr Leu Val Asp Asn Leu Ile Thr Gly Trp Pro Phe Asp
            100                 105                 110
Asn Ala Thr Cys Lys Met Ser Gly Leu Val Gln Gly Met Ser Val Ser
        115                 120                 125
Ala Ser Val Phe Thr Leu Val Ala Ile Ala Val Glu Arg Phe Arg Cys
    130                 135                 140
Ile Val His Pro Phe Arg Glu Lys Leu Thr Leu Arg Lys Ala Leu Val
145                 150                 155                 160
Thr Ile Ala Val Ile Trp Ala Leu Ala Leu Leu Ile Met Cys Pro Ser
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Ala Val Thr Leu Thr Val Thr Arg Glu Glu His His Phe Met Val Asp
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Ala Arg Asn Arg Ser Tyr Pro Leu Tyr Ser Cys Trp Glu Ala Trp Pro
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        195                 200                 205
Glu Lys Gly Met Arg Arg Val Tyr Thr Thr Val Leu Phe Ser His Ile
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Tyr Leu Ala Pro Leu Ala Leu Ile Val Val Met Tyr Ala Arg Ile Ala
225                 230                 235                 240
Arg Lys Leu Cys Gln Ala Pro Gly Pro Ala Pro Gly Gly Glu Glu Ala
                245                 250                 255
Ala Asp Pro Arg Ala Ser Arg Arg Arg Ala Arg Val Val His Met Leu
            260                 265                 270
Val Met Val Ala Leu Phe Phe Thr Leu Ser Trp Leu Pro Leu Trp Ala
        275                 280                 285
Leu Leu Leu Leu Ile Asp Tyr Gly Gln Leu Ser Ala Pro Gln Leu His
    290                 295                 300
Leu Val Thr Val Tyr Ala Phe Pro Phe Ala His Trp Leu Ala Phe Phe
305                 310                 315                 320
Asn Ser Ser Ala Asn Pro Ile Ile Tyr Gly Tyr Phe Asn Glu Asn Phe
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Arg Arg Gly Phe Gln Ala Ala Phe Arg Ala Arg Leu Cys Pro Arg Pro
            340                 345                 350
Ser Gly Ser His Lys Glu Ala Tyr Ser Glu Arg Pro Gly Gly Leu Leu
        355                 360                 365
His Arg Arg Val Phe Val Val Val Arg Pro Ser Asp Ser Gly Leu Pro
    370                 375                 380
Ser Glu Ser Gly Pro Ser Ser Gly Ala Pro Arg Pro Gly Arg Leu Pro
385                 390                 395                 400
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            20                  25                  30
Ser Ser Tyr Tyr Gln His Ser Ser Pro Val Ala Ala Met Phe Ile Ala
        35                  40                  45
Ala Tyr Val Leu Ile Phe Leu Leu Cys Met Val Gly Asn Thr Leu Val
    50                  55                  60
Cys Phe Ile Val Leu Lys Asn Arg His Met Arg Thr Val Thr Asn Met
65                  70                  75                  80
Phe Ile Leu Asn Leu Ala Val Ser Asp Leu Leu Val Gly Ile Phe Cys
                85                  90                  95
Met Pro Thr Thr Leu Val Asp Asn Leu Ile Thr Gly Trp Pro Phe Asp
            100                 105                 110
Asn Ala Thr Cys Lys Met Ser Gly Leu Val Gln Gly Met Ser Val Ser
        115                 120                 125
Ala Ser Val Phe Thr Leu Val Ala Ile Ala Val Glu Arg Phe Arg Cys
    130                 135                 140
Ile Val His Pro Phe Arg Glu Lys Leu Thr Leu Arg Lys Ala Leu Phe
145                 150                 155                 160
Thr Ile Ala Val Ile Trp Ala Leu Ala Leu Leu Ile Met Cys Pro Ser
                165                 170                 175
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Ala Val Thr Leu Thr Val Thr Arg Glu Glu His His Phe Met Leu Asp
            180                 185                 190
Ala Arg Asn Arg Ser Tyr Pro Leu Tyr Ser Cys Trp Glu Ala Trp Pro
        195                 200                 205
Glu Lys Gly Met Arg Lys Val Tyr Thr Ala Val Leu Phe Ala His Ile
    210                 215                 220
Tyr Leu Val Pro Leu Ala Leu Ile Val Val Met Tyr Val Arg Ile Ala
225                 230                 235                 240
Arg Lys Leu Cys Gln Ala Pro Gly Pro Ala Arg Asp Thr Glu Glu Ala
                245                 250                 255
Val Ala Glu Gly Gly Arg Thr Ser Arg Arg Arg Ala Arg Val Val His
            260                 265                 270
Met Leu Val Met Val Ala Leu Phe Phe Thr Leu Ser Trp Leu Pro Leu
        275                 280                 285
Trp Val Leu Leu Leu Leu Ile Asp Tyr Gly Glu Leu Ser Glu Leu Gln
    290                 295                 300
Leu His Leu Leu Ser Val Tyr Ala Phe Pro Leu Ala His Trp Leu Ala
305                 310                 315                 320
Phe Phe His Ser Ser Ala Asn Pro Ile Ile Tyr Gly Tyr Phe Asn Glu
                325                 330                 335
Asn Phe Arg Arg Gly Phe Gln Ala Ala Phe Arg Ala Gln Leu Cys Trp
            340                 345                 350
Pro Pro Trp Ala Ala His Lys Gln Ala Tyr Ser Glu Arg Pro Asn Arg
        355                 360                 365
Leu Leu Arg Arg Arg Val Val Val Asp Val Gln Pro Ser Asp Ser Gly
    370                 375                 380
Leu Pro Ser Glu Ser Gly Pro Ser Ser Gly Val Pro Gly Pro Gly Arg
385                 390                 395                 400
Leu Pro Leu Arg Asn Gly Arg Val Ala His Gln Asp Gly Pro Gly Glu
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Gly Pro Gly Cys Asn His Met Pro Leu Thr Ile Pro Ala Trp Asn Ile
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            20                  25                  30
Ser Ser Tyr Tyr Gln His Ser Ser Pro Val Ala Ala Met Phe Ile Ala
        35                  40                  45
Ala Tyr Ala Leu Ile Phe Leu Leu Cys Met Val Gly Asn Thr Leu Val
    50                  55                  60
Cys Phe Ile Val Leu Lys Asn Arg His Met Arg Thr Val Thr Asn Met
65                  70                  75                  80
Phe Ile Leu Asn Leu Ala Val Ser Asp Leu Leu Val Gly Ile Phe Cys
                85                  90                  95
Met Pro Thr Thr Leu Val Asp Asn Leu Ile Thr Gly Trp Pro Phe Asp
            100                 105                 110
Asn Ala Thr Cys Lys Met Ser Gly Leu Val Gln Gly Met Ser Val Ser
        115                 120                 125
Ala Ser Val Phe Thr Leu Val Ala Ile Ala Val Glu Arg Phe Arg Cys
    130                 135                 140
Ile Val His Pro Phe Arg Glu Lys Leu Thr Leu Arg Lys Ala Leu Leu
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145                 150                 155                 160
Thr Ile Ala Val Ile Trp Ala Leu Ala Leu Leu Ile Met Cys Pro Ser
                165                 170                 175
Ala Val Thr Leu Thr Val Thr Arg Glu Glu His His Phe Met Leu Asp
            180                 185                 190
Ala Arg Asn Arg Ser Tyr Pro Leu Tyr Ser Cys Trp Glu Ala Trp Pro
        195                 200                 205
Glu Lys Gly Met Arg Lys Val Tyr Thr Ala Val Leu Phe Ala His Ile
    210                 215                 220
Tyr Leu Ala Pro Leu Ala Leu Ile Val Val Met Tyr Ala Arg Ile Ala
225                 230                 235                 240
Arg Lys Leu Cys Gln Ala Pro Gly Pro Ala Arg Asp Ala Glu Glu Ala
                245                 250                 255
Val Ala Glu Gly Gly Arg Ala Ser Arg Arg Arg Ala Arg Val Val His
            260                 265                 270
Met Leu Val Met Val Ala Leu Phe Phe Thr Leu Ser Trp Leu Pro Leu
        275                 280                 285
Trp Val Leu Leu Leu Leu Ile Asp Tyr Gly Glu Leu Ser Glu Leu Gln
    290                 295                 300
Leu His Leu Leu Ser Val Tyr Ala Phe Pro Leu Ala His Trp Leu Ala
305                 310                 315                 320
Phe Phe His Ser Ser Ala Asn Pro Ile Ile Tyr Gly Tyr Phe Asn Glu
                325                 330                 335
Asn Phe Arg Arg Gly Phe Gln Ala Ala Phe Arg Ala Gln Leu Cys Trp
            340                 345                 350
Leu Pro Trp Ala Ala His Lys Gln Ala Tyr Ser Glu Arg Pro Gly Arg
        355                 360                 365
Leu Leu Arg Arg Arg Val Val Val Asp Val Gln Pro Ser Asp Ser Gly
    370                 375                 380
Leu Pro Ser Glu Ser Gly Pro Ser Ser Gly Val Pro Gly Pro Asn Arg
385                 390                 395                 400
Leu Pro Leu Arg Asn Gly Arg Val Ala His Gln Asp Gly Pro Arg Glu
                405                 410                 415
Gly Pro Gly Cys Asn His Met Pro Leu Thr Ile Pro Ala Trp Asn Ile
            420                 425                 430
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Met Glu Ile Ile Ser Ser Lys Leu Phe Ile Leu Leu Thr Leu Ala Thr
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            20                  25                  30
Ser Asn Leu His Ser Lys Glu Asn Tyr Asp Lys Tyr Ser Glu Pro Arg
        35                  40                  45
Gly Tyr Pro Lys Gly Glu Arg Ser Leu Asn Phe Glu Glu Leu Lys Asp
    50                  55                  60
Trp Gly Pro Lys Asn Val Ile Lys Met Ser Thr Pro Ala Val Asn Lys
65                  70                  75                  80
Met Pro His Ser Phe Ala Asn Leu Pro Leu Arg Phe Gly Arg Asn Val
                85                  90                  95
Gln Glu Glu Arg Ser Ala Gly Ala Thr Ala Asn Leu Pro Leu Arg Ser
            100                 105                 110
Gly Arg Asn Met Glu Val Ser Leu Val Arg Arg Val Pro Asn Leu Pro
        115                 120                 125
```

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Gln Arg Phe Gly Arg Thr Thr Thr Ala Lys Ser Val Cys Arg Met Leu
    130                 135                 140
Ser Asp Leu Cys Gln Gly Ser Met His Ser Pro Cys Ala Asn Asp Leu
145                 150                 155                 160
Phe Tyr Ser Met Thr Cys Gln His Gln Glu Ile Gln Asn Pro Asp Gln
                165                 170                 175
Lys Gln Ser Arg
            180
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